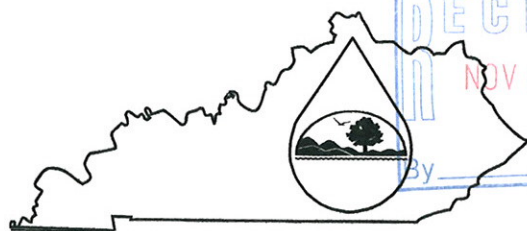


KPDES FORM SDAA



Kentucky Pollutant Discharge Elimination System (KPDES)

Socioeconomic Demonstration and Alternatives Analysis

The Antidegradation Implementation Procedure found in 401 KAR 10:030, Section 1(3)(b)3 requires KPDES permit applications for new or expanded discharges to waters categorized as "Exceptional or High Quality Waters" to conduct a socioeconomic demonstration and alternatives analysis to justify the necessity of lowering local water quality to accommodate important economic or social development in the area in which the water is located. This demonstration shall include this completed form and copies of any engineering reports, economic feasibility studies, or other supporting documentation

I. Project Information

Facility Name: Lester Brothers Enterprise Inc.

Location: Seals Branch Road

County: Letcher

Receiving Waters Impacted: Bottom Fork of Wright Fork

II. Socioeconomic Demonstration

1. Define the boundaries of the affected community:

(Specify the geographic region the proposed project is expected to affect. Include name all cities, towns, and counties. This geographic region must include the proposed receiving water.)

The immediate watershed affected by the operation is Bottom Fork of Wright Fork located on Seals Drive off Ky Route 343 in the city limits of Fleming-Neon in Letcher County, Kentucky. Although Fleming-Neon is the most immediate community affected by this operation other communities within a 1.5 mile radius are Hemphill, McRoberts, Cromona, and Haymond.

2. The effect on employment in the affected community:

(Compare current unemployment rates in the affected community to current state and national unemployment rates. Discuss how the proposed project will positively or negatively impact those rates, including quantifying the number of jobs created and/or continued and the quality of those jobs.)

Currently the state unemployment for August, 2009 is 10.4% and for Letcher County that number is 12.6% a 2.2% higher than state average unemployment for the Fleming-Neon area reflects a need of additional jobs in the area. The national unemployment average is 9.8%. This mining operation will have an immediate direct increase in employment in the area for approximately 10 workers and will indirectly affect approximately 20 workers by either adding to or sustaining employment in mine support industry in Letcher County. This mining operation is expected to have a life expectancy in the immediate area for approximately three years. Some of workers may be retained by the company which would allow for continual employment.

(Unemployment statistics furnished by U. S. Bureau of Labor)

II. Socioeconomic Demonstration- continued

3. The effect on median household income levels in the affected community:

(Compare current median household income levels with projected median household income levels. Discuss how proposed project will positively or negatively impact the median household income in the affected community including the number of households expected to be impacted within the affected community.)

The average annual income for the state of Kentucky is \$37,396 and the average income for miners in the state is \$47,400.

This operation will provide for approximately 10 households directly with a better than average annual income which relates to increased income for supporting family necessities, such as grocery stores, commodities, and related community functions. Approximately 20 households will be indirectly impacted by an increase in income which will also provide for added income in the community.

4. The effect on tax revenues of the affected community:

(Compare current tax revenues of the affected community with the projected increase in tax revenues generated by the proposed project. Discuss the positive and negative social and economic impacts on the affected community by the projected increase.)

This operation is anticipated to produce 160,000 tons of coal. This will average \$56,000.00 in coal severance tax revenue. Recovery of the coal located in the Fleming-Neon area will require payment of severance taxes (approximately 15%) being \$8,4000.00, which should be returned to Letcher County to provide funds to establish alternative industries, as well as provide for public safety, environmental protection, public transportation, vocational training, health/recreational facilities, social services, industrial/economic development, workforce training, and secondary wood industry. In the past Letcher County has also used those tax dollars to improve or maintain law enforcement, fire protection, ambulance service, libraries and educational facilities, and public parks.

II. Socioeconomic Demonstration- continued

5. The effect on an existing environmental or public health in affected community:

(Discuss how the proposed project will have a positive or negative impact on an existing environmental or public health.)

This operation consists of reclaiming an existing coal "gob" pile and re-mining of a pre-law contour mining operation. Once mitigation begins, the stream banks will be stabilized to prevent erosion and species indigenous to the area will be planted to establish an adequate riparian zone and stream channels will be rehabilitated to curb sedimentation. This will provide a healthier habitat for aquatic species and wildlife leading to a more balanced ecosystem.

As far as public health, the re-establishment of stream banks and removal of the "gob" pile not only provides for aesthetic values of the community and environment but provides a increase in the quality of surface and ground water in the area by the use of sediment control practices during the short term.

6. Discuss any other economic or social benefit to the affected community:

(Discuss any positive or negative impact on the economy of the affected community including direct and or indirect benefits that could occur as a result of the project. Discuss any positive or negative impact on the social benefits to the community including direct and indirect benefits that could occur as a result of the project.)

The facility will require supporting jobs as well as mining jobs. Equipment sales and repair, mining/engineering consultants, and fuel/transportation providers will be needed as a result of the mine. The continuation of these jobs and the taxes collected because of it spurs community development and the creation of more jobs in the Fleming-Neon and other surrounding communities in Letcher County. It also provides additional revenue to the businesses of the area already in existence, which creates more jobs and development. The increased payments of property taxes will benefit schools so that they have better equipment and facilities and better paid teachers. Also, the increased tax payments will provide additional money for government services to better serve the citizens. After mining is completed the area will be utilized for many outdoor recreation activities. The additional mining should increase the coal severance tax. This will add an annual basis to the Letcher County tax base.

III. Alternative Analysis

1. Pollution prevention measures:

(Discuss the pollution prevention measures evaluated including the feasibility of those measures and the cost. Measures to be addressed include but are not limited to changes in processes, source reductions or substitution with less toxic substances. Indicate which measures are to be implemented.)

This operation proposes to reclaim an existing coal refuse (gob) pile and re-mine an existing contour area of the Elkhorn No. 3 coal seam. Typical mine planning for pollution measures involves sediment control structures to control surface water runoff and ground water monitoring wells to monitor ground water flow and sampling for immediate determination of degradation of such waters. Typical daily activities with regards to dust is usually water sprays from mobile vehicles. This operation proposes five sediment control structures along with two ground water monitoring wells. Our preliminary investigations and sampling reveals normal seasonal flow patterns and data typical of areas of eastern Kentucky with previous mining in the watersheds. Typical cost for dugout structures is \$5,000 per structure with a total cost of \$25,000 for surface runoff. Surface and ground water monitoring including collection, sampling, and reporting cost approximately \$250/monthly until bond release with a total project life cost of \$15,000.

Other such processes for pollution control that was considered and has been addressed in other sections of this application is storm/water treatment facilities and for dust control chemical suppression material.

2. The use of best management practices to minimize impacts:

(Discuss the consideration and use of best management practices that will assist in minimizing impacts to water quality from the proposed permitted activity.)

Best management practices are being utilized in this operation by removal of an existing coal refuse (gob) pile and reclamation of exposed highwalls from previous contour mining operations. Such practices include the restablization of stream channels, reconstruction of natural drainage paths, and elimination of exposed rock highwalls. Revegetation of the area with native species indigenous to the area will create an environmental impact to the area greater than the pre-mining use.

3. Recycle or reuse of wastewater, waste by-products, or production materials and fluids:

(Discuss the potential recycle or reuse opportunities evaluated including the feasibility of implementation and the costs. Indicate which of, of these opportunities are to be implemented)

The water conservation includes hydro-seeding and dust-control. Water used for dust suppression in a day would be about 15,000 gallons. This would be approximately 10% of the storm water of this permit area. The remaining 100,000 gallons of storm water would have to be pumped to a treatment plant. Dust suppression is only required during dry times when the flow of discharges is low or non-existent. The cost to collect this amount of flow prohibits the use of all the flow generated. The cost to collect this water has been estimated at \$1,608,000.00. Therefore, water reuse or recycle is not a feasible alternative. Also, There are no other facilities on site (preparation plant) that will require a raw water source. The drainage ways of all the ponds collectively is 139.32 acres, which would produce more storm water than could be utilized on site. The site would generally be able to use approximately 15,000 gallons a day during the rainy season.

Some waste by-products which maybe utilized by the mining operation is logging in the area. Normally, logging operations have precluded the mining process and since this operation is a re-mining process most of the logging recovery has been completed. All oil changed from the equipment will be collected and is picked up by a collection company for re-cycling.

III. Alternative Analysis - continued

4. Application of water conservation methods:

(Discuss the potential water conservation opportunities evaluated including the feasibility of implementation and the costs. Indicate which of, of these opportunities are to be implemented)

Depletion of water bearing strata or sub-surface flow patterns is not expected by this re-mining operation. Predicted short-term effects will reduce the surface runoff by less than .8% of the pre-mining state. Upon completion of mining and reclamation flow quantity and quality is predicted to equal or exceed the pre-mining state.

5 Alternative or enhanced treatment technology:

(Compare feasibility and costs of proposed treatment with the feasibility and costs of alternative or enhanced treatment technologies that may result in more complete pollutant removal. Describe each candidate technology including the efficiency and reliability in pollutant removal and the capital and operational costs to implement those candidate technologies. Justify the selection of the proposed treatment technology.)

Alternative treatment works has been investigated. The nearest water treatment system is the Whitesburg Water Treatment system approximately 20 miles away. It would cost approximately \$1,608,000.00 (104,000 feet of pipe and pumps) to collect and gather the discharge. This is composed of \$15.00 per foot and \$24,000.00 for pump station. It would cost another \$2,112,000.00 to send the discharge to the Whitesburg Treatment Plant. The Whitesburg treatment plant would require a sedimentation basin to remove the silt before allowing it to enter the plant. These costs prohibit this alternative.

Another option for transport would involve the use of self-contained disposal trucks which would also be excessively expensive. With this said it would take approximately 12 self-contained disposal truck loads per day to remove the sediment. Also insurance and the cost of gas for said disposal trucks would also be excessively expensive. The dollar amount for said disposal trucks to remove 12 loads of sediment per day would be approximately \$36,675.00. Due to the topography of the area, several pump stations would also have to be constructed and bring these costs up even more.

Discharges will be the result of stormwater and drainage from the mine site. The storm water will be received by Bottom of Wright Fork of Boone Potter Fork of North Fork of Kentucky River.

III. Alternative Analysis - continued

6. Improved operation and maintenance of existing treatment systems:

(Discuss improvements in the operation and maintenance of any available existing treatment system that could accept the wastewater. Compare the feasibility and costs of improving an existing system with the feasibility and cost of the proposed treatment system.)

As stated in Item 5, the nearest water treatment facility is located in Whitesburg and is not economically feasible to transport the waste water this distance. We believe the proposed system of sediment ponds which will control sediment laden runoff from the operation and retain the water until deposition of sediment has occurred and then discharge into the natural stream paths to replenish the surface water streams below and eventually into the ground water zones.

Updating of any existing treatment facility would not be economical due to the short life span (approximately 3 years) of this operation which would deem the renovations impractical upon completion of mining activities.

7. Seasonal or controlled discharge options:

(Discuss the potential of retaining generated wastewaters for controlled releases under optimal conditions, i.e. during periods when the receiving water has greater assimilative capacity. Compare the feasibility and cost of such a management technique with the feasibility and cost of the proposed treatment system.)

The proposed sediment structures as designed have incorporated discharge venues for 10 yr and 25 yr storm releases. Flows during these events have been reduced or controlled to not increase the normal discharge patterns of the watersheds as for pre-mining conditions. As stated in other areas of this application the short term change in the total watershed drainage is 0.8% increase.

To design a structure which could hold storm events totally to allow for controlled discharges would not be feasible due to the geographical make-up of the watersheds. Such structures would be deemed impractical due to existing land use, public safety, accessibility and/or right-of-entry.

III. Alternative Analysis - continued

8 Land application or infiltration or disposal via an Underground Injection Control Well

(Discuss the potential of utilizing a spray field or an Underground Injection Control Well for shallow or deep well disposal. Compare the feasibility and costs of such treatment techniques with the feasibility and costs of proposed treatment system.)

The possibility of drilling an injection well (to inject the discharges underground) depending on depth could cost up to \$50,000.00 per well. At a value of 10,000 gallons a day it would take at least 12 wells to dispose the storm water. Injecting these discharges underground would also increase the potential of an outcrop blowout or blow out from an old adit. Injecting this water underground would also require a UIC Permit. There hasn't been found a suitable place to inject within a reasonable distance of this site. The storm water and drainage will accumulate over time so that on-site or subsurface disposal will not be adequate over the long-term. The storm water must be discharged from the project site.

There are no known underlying abandoned underground works in the area to receive such discharges if this was an option.


Due to the topography of the area, a spray field is not feasible due to trucking distances and the acquisition of such property rights for utilization.

9 Discharge to other treatment systems

(Discuss the availability of either public or private treatments systems with sufficient hydrologic capacity and sophistication to treat the wastewaters generated by this project. Compare the feasibility and costs of such options with the feasibility and costs of the proposed treatment system.)

Other public treatment systems are not available, however private systems may be available but not of sufficient capacity and make-up to treat wastewaters. The use of a sanitary septic system, i.e., septic tank was evaluated but is not an applicable option. Building a system large enough to handle the volume of water would be impractical. The typical septic tank will only hold back 1,000 gallons. This job could produce up to 115,000 gallons a day during a storm event. With this anticipation, it would require 115 septic systems with drain fields up to an acre each for each event. This site will not have adequate useable space that this number (115 systems per a day storm) of systems could be placed. Septic systems are designed to degrade organic waste and biodegradable material over time by anaerobic digestion. While the source water would most likely contribute some organic material and some needed bacteria, this would be inadequate to decompose the sediment and would work essentially the same as a sediment structure.

IV Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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Signature:		Date:	10-30-2009